



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/781,838	02/12/2001	Jiangnan J. Chen	CE08899R	7721
22917	7590	08/25/2004	EXAMINER	
MOTOROLA, INC. 1303 EAST ALGONQUIN ROAD IL01/3RD SCHAUMBURG, IL 60196			SHAH, CHIRAG G	
			ART UNIT	PAPER NUMBER
			2664	
DATE MAILED: 08/25/2004				

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)
	09/781,838	CHEN ET AL.
	Examiner	Art Unit
	Chirag G Shah	2664

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

1) Responsive to communication(s) filed on 12 February 2001.  
 2a) This action is **FINAL**.                    2b) This action is non-final.  
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

4) Claim(s) 1 and 2 is/are pending in the application.  
 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
 5) Claim(s) 3-6 is/are allowed.  
 6) Claim(s) \_\_\_\_\_ is/are rejected.  
 7) Claim(s) \_\_\_\_\_ is/are objected to.  
 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

9) The specification is objected to by the Examiner.  
 10) The drawing(s) filed on 12 February 2001 is/are: a) accepted or b) objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) All    b) Some \* c) None of:  
 1. Certified copies of the priority documents have been received.  
 2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

1) Notice of References Cited (PTO-892)  
 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)  
 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
 Paper No(s)/Mail Date \_\_\_\_\_

4) Interview Summary (PTO-413)  
 Paper No(s)/Mail Date. \_\_\_\_\_  
 5) Notice of Informal Patent Application (PTO-152)  
 6) Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.
2. Claims 1-2 rejected under 35 U.S.C. 103(a) as being unpatentable over Sunay (3G 1xEV-DV Air Interface Specification) in view of Berliner et al. (U.S. Patent No. 6,631,126).

Referring to claim 1, Sunay discloses in the sections “Reverse Link Control Channels”, “AKCH and RICH Structure” of a control frame having a frame comprising: a Reverse Transmitter Sector Indicator Subchannel (Best Sector Indicator Channel (BSICH) used by the mobile to convey the best sector that it can receive from every slot), wherein the (BSICH) is utilized by a mobile station to communicate a PN\_OFFSET (8-ary orthogonal coding); a Reverse Quality Indicator subchannel (Reverse Rate Indicator Channel (RICH) used by the mobile to indicate the data rate transmitted on the R-SCH, identifies up to 8 data rates), wherein RICH is used to deliver of forward channel quality (rate) feedback; a Reverse Acknowledgment Indicator Sub-channel (R-AICH, bases on C/I measurements, Power Fraction information and the antenna capability the mobile indicates the data rates that can be supported on the F-PDCH), wherein the R-AICH is utilized for the indication of successful reception from the mobile station. Sunay fails to disclose of a Reverse Echo subchannel (R-Echo), wherein R-Echo is utilized to deliver forward link configuration information to assist in a fast cell site selection (FCSS) process.

Berliner discloses in column 6, lines 27 to column 7, lines 30 of distribution function echoes the reverse signaling to all call legs. Berliner et al discloses in figure 3A and 3B respective portions of the specification that in the reverse direction, each leg receives a reverse-link transmission from the mobile unit and separates the user data from any signaling information contained in the transmission. The frame selection/distribution (FSD) removes the reverse signaling information from the selected reverse packet and places it in the next forward packet being sent on the back haul to the call legs as echoed reverse signaling 308. The distribution function therefore echoes the reverse signaling to all call legs. Therefore, it would have been obvious to one of ordinary skill in the art to modify the teachings of Sunay to include the teaching of reverse link echoing control channel within a frame as taught by Berliner et al in order to retrieve the user's reverse signaling information from the echoed signaling, even if it fails to receive the user's direct transmission over the air interface, thus, minimizing delay.

Referring to claim 2, Sunay discloses in the section "Reverse Link Control Channels" the control channel of claim 1 wherein the R-AISCH (AKCH) is one-bit (every slot) acknowledgment feedback as claim.

***Allowable Subject Matter***

3. Claims 3-6 allowed.

**Any response to this action should be mailed to:**

Commissioner of Patents and Trademarks  
Washington, D.C. 20231

**Or faxed to:**

(703)305-3988, (for formal communications intended for entry)

**Or:**

**Best Available Copy**

(703)305-3988 (for informal or draft communications, please label "Proposed" or "DRAFT")

Hand-delivered responses should be brought to Crystal Park II, 2021 Crystal Drive, Arlington, VA., Sixth Floor (Receptionist).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chirag G Shah whose telephone number is 703-305-5639. The examiner can normally be reached on M-F 8:30 to 5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wellington Chin can be reached on 703-305-4366. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

cgs  
August 16, 2004

  
Ajit Patel  
Primary Examiner

Best Available Copy